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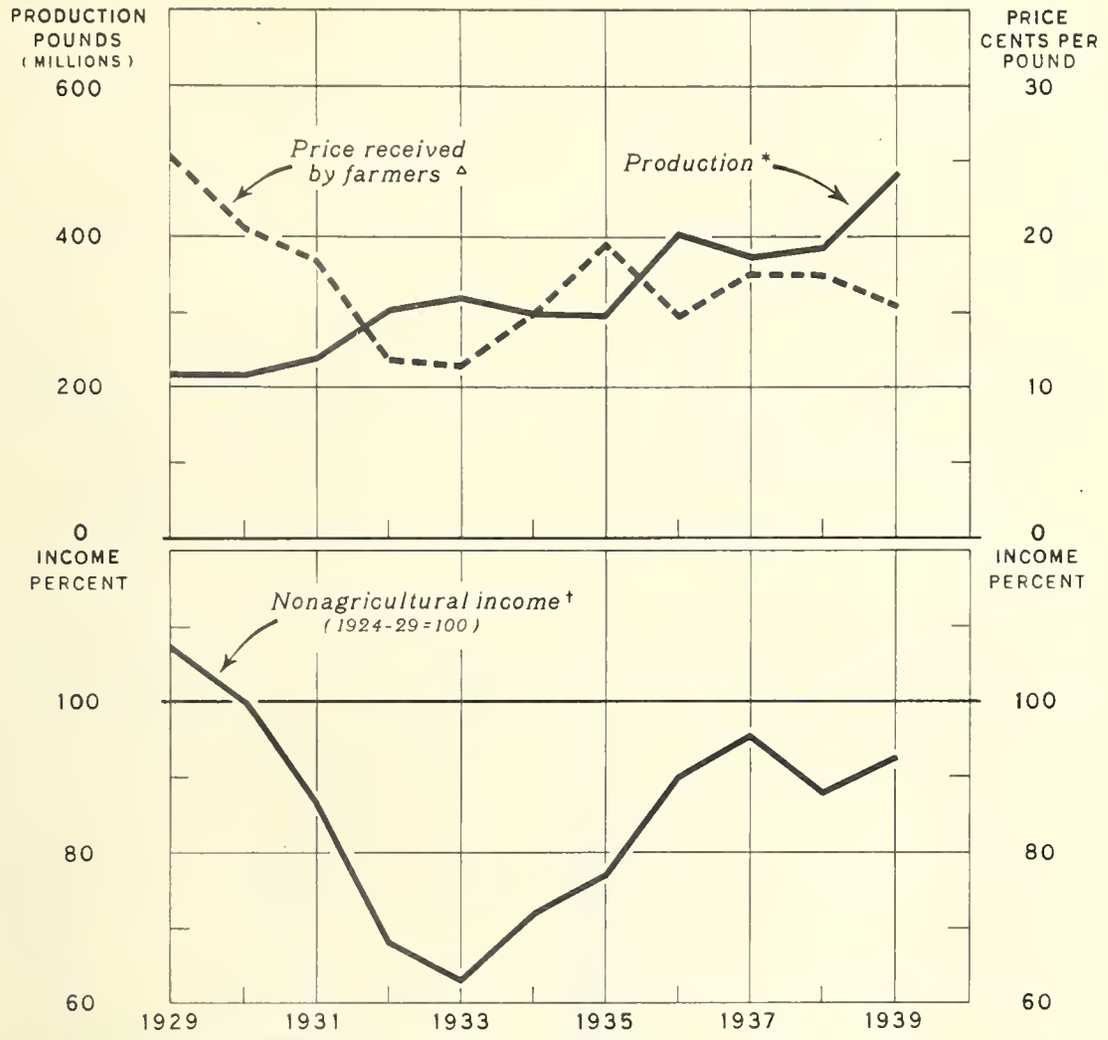
THE Poultry and Egg SITUATION

BUREAU OF AGRICULTURAL ECONOMICS
UNITED STATES DEPARTMENT OF AGRICULTURE

PES-46 BAE OCTOBER 1940

PRODUCTION AND PRICE OF TURKEYS, AND INDEX NUMBERS OF NONAGRICULTURAL INCOME, UNITED STATES, 1929-39

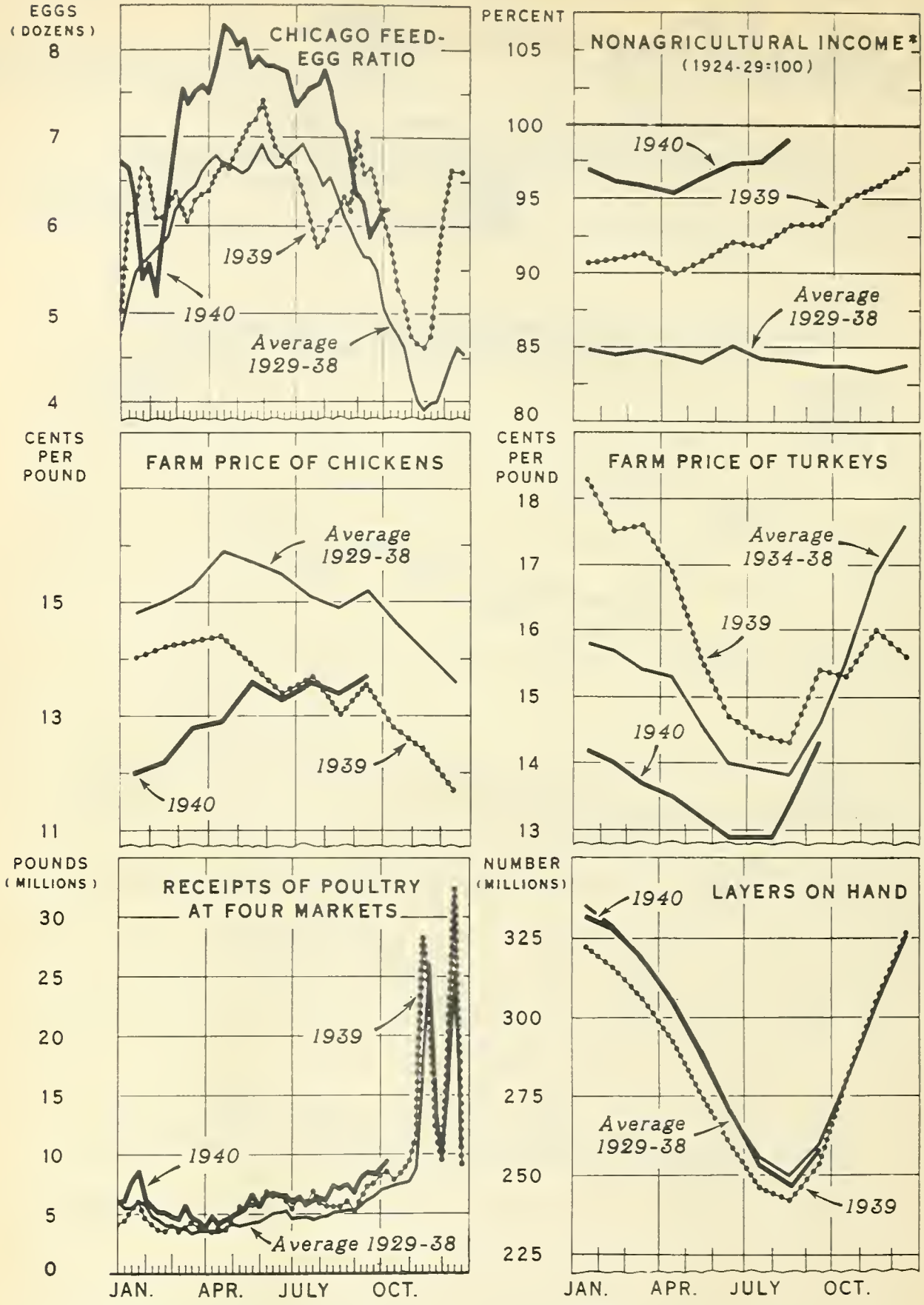


* TURKEYS SOLD PLUS TURKEYS CONSUMED IN FARM HOUSEHOLDS ADJUSTED FOR CHANGES IN INVENTORY.
△ OCT. TO JAN. PRICES WEIGHTED AS FOLLOWS: OCT., 2; NOV., 3; DEC., 3; JAN., 2.
† AVERAGE AUG. TO JAN.

U. S. DEPARTMENT OF AGRICULTURE NEG. 38646 BUREAU OF AGRICULTURAL ECONOMICS

CHANGES FROM YEAR TO YEAR IN PRICES RECEIVED BY FARMERS FOR TURKEYS WERE CLOSELY ASSOCIATED WITH CHANGES FROM YEAR TO YEAR IN NONAGRICULTURAL INCOME FROM 1929-35. SINCE 1935, HOWEVER, TURKEY PRODUCTION HAS EXPANDED CONSIDERABLY AND THE EFFECTS ON TURKEY PRICES OF THE HIGHER LEVEL OF NONAGRICULTURAL INCOME HAS BEEN OFFSET BY THE EFFECTS OF THE LARGER PRODUCTION.

THE POULTRY AND EGG SITUATION AT A GLANCE



A. M. S. DATA, EXCEPT NONAGRICULTURAL INCOME

**INDEX NUMBERS, ADJUSTED FOR SEASONAL VARIATION*

U. S. DEPARTMENT OF AGRICULTURE

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FIGURE 1

THE POULTRY AND EGG SITUATION

In this issue: Outlook for 1940 Turkey Marketings

Summary

Supplies of turkey meat may be slightly larger this fall and winter than last. There was an increase of 1 percent in the number of turkeys raised this year, a slightly heavier average weight per bird, and a larger storage stock at the beginning of this season. But the effect of these larger supplies on prices may be partly offset by the effects of larger consumer incomes and smaller supplies of chicken and pork. An additional favorable factor is that consumers now eat turkey more frequently than heretofore. Hence, the average price per pound received by farmers for the major part of the 1940 crop of turkeys is expected to be about the same as or somewhat lower than the average received for most of the 1939 production. Turkey prices in early 1941 may be higher than a year earlier.

Monthly egg production during the last few months was the largest for those months since 1931. This larger production was the result of the higher average rate of lay per bird since about 4 percent fewer layers were on farms than in 1931. However, the increase in the number of layers on farms from now until January will be less than in 1939, and thus egg production during the remainder of this year probably will be less than in the corresponding period of 1939. Egg production in the first half of 1941 is expected to be less than a year earlier. Storage stocks of privately owned shell and frozen eggs now are about the same as a year earlier. Thus with the larger consumer incomes in prospect higher egg prices than a year earlier are expected for the remainder of this year and at least for most of 1941.

Receipts of poultry at principal markets were larger than a year earlier during the last few weeks due to the late hatchings this year, the heavier movement of turkeys, and the earlier-than-usual marketings of later hatched chickens. But the increase in receipts is not expected to continue, since marketings of fowl and chickens during the next few months probably will be smaller than a year earlier. Storage holdings of fowl and all classes of chickens were increased more than usual between September 1 and October 1 this year and holdings of all frozen poultry on October 1 were 43 percent larger than on October 1, 1939. As a result of the prospective smaller supplies of poultry meat (excluding turkeys), smaller supplies of pork, and larger consumer incomes, the margin of this year's prices received by farmers for chickens over those of a year earlier is expected to continue to widen for the next several months.

-- October 19, 1940

FEED-EGG RATIO

The prospective supplies of feed grains for 1940-41 are now estimated to total about 113 million tons, the second largest supply in 20 years, and 12 percent above the 1928-32 average. The number of grain-consuming animal units is expected to be smaller this year than last and the supply of feed grains per animal will be the largest on record. Total supplies of high protein feeds and other concentrated feeds used extensively for poultry feeding are expected to be little larger in 1940-41 than in 1939-40. However, prices of feeds are expected to remain fairly stable since the corn loan program is an important factor supporting all feed prices.

The cost of the poultry ration used in computing the Chicago feed-egg ratio was somewhat higher than a year earlier during recent weeks largely because the price of corn did not decline this year as it did in October 1939. Although the cost of this ration probably will continue as high as or higher than a year earlier during the remainder of this year and at least for the first part of 1941, the number of eggs required to buy 100 pounds of feed, based on Chicago prices is expected to average fewer because of the higher egg prices expected for the coming winter and spring egg laying season.

Feed-egg ratio at Chicago

(Dozens of eggs required to buy 100 pounds of poultry ration)

Year	Week ending as of 1940											
	Mar. 30	June 29	Aug. 31	Sept. 14	Sept. 21	Sept. 28	Oct. 5	Oct. 12	Oct. 19	Oct. 26	Nov. 2	Dec. 28
	Doz.	Doz.	Doz.	Doz.	Doz.	Doz.	Doz.	Doz.	Doz.	Doz.	Doz.	Doz.
Average: 1929-38	6.60	6.79	5.98	5.65	5.63	5.49	5.04	4.90	4.76	4.62	4.28	4.54
1938	6.70	5.50	4.26	4.16	4.13	4.10	3.91	3.71	3.71	3.79	3.48	4.31
1939	6.35	6.71	6.13	6.59	6.66	6.39	6.10	5.79	5.29	5.13	4.73	6.62
1940	7.59	7.57	6.78	6.25	5.87	6.02	6.17	6.19				

EGG SITUATION

Number of layers on farms

The number of layers on farms increased much less from August to September this year than between the corresponding 2 months of 1939. This tendency is likely to continue during the remainder of this year because of the smaller number of pullets now on farms and available for replacing stock that is culled out. The decline in numbers from January to August 1941 may be less than in 1940, since prices of both eggs and chickens are expected to be higher relative to feed costs during that period than they were in January to August of 1940.

The average number of layers on farms during September of this year was about 2 percent larger than in September 1939 but slightly below the 10-year average for September. The number of layers expected to be on farms in January 1941 is expected to be about 5 percent smaller than in January 1940.

Number of layers on farms, United States

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
	Mil.	Mil.	Mil.	Mil.	Mil.	Mil.	Mil.	Mil.	Mil.	Mil.	Mil.	Mil.
Average: 1929-38	335	328	318	304	287	270	256	250	259	280	303	325
1938	307	301	292	278	262	248	236	234	245	269	293	314
1939	322	316	306	292	276	260	246	242	253	279	305	326
1940	332	327	318	304	289	270	252	247	257			

Egg production

The average number of eggs produced per layer in September was larger than a year earlier for the fourth consecutive month. Thus with only 2 percent more layers than in September 1939, 6 percent more eggs were produced. This

marks the fourth consecutive months this year during which production of eggs was the largest since the corresponding month in 1931.

Egg production during the first half of 1941 probably will be less than in the first half of 1940, mainly because of the appreciably smaller number of layers expected to be on farms during that period. Egg production in the last few months of 1941 may be larger than in the last few months of 1940, following the expected larger hatch in 1941 compared to 1940.

Total farm production of eggs, United States

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
	Mil. cases	Mil. cases	Mil. cases	Mil. cases	Mil. cases	Mil. cases	Mil. cases	Mil. cases	Mil. cases	Mil. cases	Mil. cases	Mil. cases
Average: 1929-38	5.9	7.9	12.5	14.1	13.3	10.6	9.0	7.7	6.4	5.2	4.0	4.0
1938	6.7	8.3	12.5	13.5	12.6	10.3	8.9	7.6	6.4	5.6	4.8	5.5
1939	7.2	8.5	12.6	13.8	13.0	10.6	9.1	7.8	6.5	5.7	5.1	6.1
1940	6.7	8.2	12.7	14.0	13.7	11.1	9.4	8.1	7.0			

Average number of eggs produced per layer, United States

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Average: 1929-38	6.3	8.6	14.2	16.6	16.7	14.2	12.7	11.1	8.9	6.7	4.8	5.0
1938	7.9	9.9	15.4	17.5	17.3	14.9	13.6	11.8	9.4	7.5	5.9	6.4
1939	8.0	9.7	14.9	17.0	17.0	14.6	13.2	11.7	9.3	7.4	6.0	6.8
1940	7.2	9.0	14.4	16.5	17.0	14.8	13.4	11.8	9.7			

Egg storage

Total storage stocks of shell eggs in the United States on October 1 were about 10 percent larger than a year earlier, but included in these holdings were 900,915 cases held by the Surplus Marketing Administration. Stocks of privately owned shell and frozen eggs were a fraction of a percent smaller than on October 1, 1939. The out-of-storage movement for shell and frozen eggs will tend to be heavier than a year earlier during the remainder of 1940 since consumer demand is expected to continue to improve and production during these months is expected to be smaller than in the corresponding months of 1939. Storage stocks of frozen eggs on October 1 were 7 percent larger than on October 1, 1939.

Eggs: Storage stocks in the United States, and storage movement at 26 markets

Year	United States stocks		Out-of-storage movement, week ending as of 1940					
			Sept.	Oct.				Nov.
	Sept. 1	Oct. 1	28	5	12	19	26	2
	1,000 cases	1,000 cases	1,000 cases	1,000 cases	1,000 cases	1,000 cases	1,000 cases	1,000 cases
Shell:								
Average 1929-38	7,949	6,749	210	243	278	304	321	351
1938	5,942	4,765	172	223	241	223	248	289
1939	6,598	5,430	201	250	263	329	296	359
1940	7,241	1/6,039	190	263	241			
Frozen:								
Average 1929-38	3,212	2,922	---	---	---	---	---	---
1938	3,572	3,150	44	53	68	60	63	85
1939	3,884	3,471	62	64	55	70	82	72
1940	4,162	1/3,732	64	58	86			

1/ Preliminary.

Egg prices

The average price received by farmers for eggs increased more than seasonally from August to September despite a less than seasonal decline in egg production between these 2 months. As a result the average farm price for eggs in mid-September was higher than a year earlier for the first time since mid-February. Wholesale egg prices, since September 15, have continued above the corresponding levels of 1939. Thus, with smaller egg supplies expected for the remainder of 1940 and larger consumer incomes in prospect compared to a year earlier it is expected that the farm price for eggs will continue higher than a year earlier for the remainder of 1940 and at least for most of 1941.

Price per dozen received by farmers for eggs

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents
Average 1929-38	24.2	20.3	17.3	16.8	16.8	16.8	18.1	19.9	23.2	26.2	30.1	28.8
1938	21.6	16.4	16.2	15.9	17.6	18.2	19.9	21.0	24.9	27.1	29.0	27.9
1939	18.8	16.7	16.0	15.5	15.2	14.9	16.5	17.5	20.6	22.9	25.8	20.5
1940	18.3	20.2	15.4	15.0	15.1	14.4	16.4	17.2	21.0			

POULTRY SITUATION

Poultry marketings

Receipts of dressed poultry at the four principal markets from July 1 through the week ended October 12 were 12 percent larger than a year earlier. Farm marketings during this same period, as indicated by receipts at primary central western packing plants also were larger than a year earlier and young stock constituted a larger proportion than ordinarily would be expected on the basis of the considerably smaller hatch this year. Storage stocks of chickens also increased more than usual between September 1 and October 1 thus tending to confirm the above indication of a heavy farm-to-market movement of young stock during September.

The heavier receipts this year probably are the result of the combined effects of the late hatch this year, of marketing of chickens at little lighter weights and at a younger age than usual and of the larger number of fowl removed from laying flocks. The movement of turkeys probably will be as heavy as or heavier than a year earlier but marketings of chickens (including fowl) are expected to be smaller. Therefore it appears that the present heavy movement of poultry will not continue and it is expected that weekly receipts for the remainder of this year and for the first part of 1941 will average smaller than a year earlier.

Receipts of dressed poultry at four markets

(New York, Chicago, Philadelphia, Boston)

Year	Week ending as of 1940									
	Aug.		Sept.			Oct.				Nov.
	24	31	14	21	28	5	12	19	26	30
	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Average	pounds	pounds	pounds	pounds	pounds	pounds	pounds	pounds	pounds	pounds
1929-38	5,213	5,370	5,756	6,181	6,517	6,812	7,229	7,467	7,562	14,164
1938	4,684	5,005	5,972	6,668	6,981	7,676	8,050	8,558	8,817	8,596
1939	5,624	6,081	6,443	7,371	7,530	8,291	8,526	7,733	8,438	12,471
1940	7,008	7,547	7,979	8,478	8,403	8,779	9,548			

Poultry storage

The net into-storage season for dressed poultry apparently began in early September, which was about 2 weeks earlier than last year but about a month later than usual. The continued heavy marketings of fowl and the marked increase in marketings of young stock probably largely account for the earlier beginning this year compared to 1939.

Whereas storage stocks of broilers, fryers and roasters on September 1 were smaller than a year earlier, stocks of fryers and roasters on October 1 were larger. All three classes increased substantially more than usual during September, reflecting heavy farm marketings. Stocks of fowl on October 1 were

nearly twice those of a year earlier and were more than one-third larger than the previous record large on October 1, 1936. Stocks of ducks on October 1 were the largest on record. Stocks of turkeys declined more than a year earlier during September but on October 1 were still nearly twice the October 1, 1939 stocks. Storage stocks of all poultry in the United States on October 1 were 43 percent larger than a year earlier and were 64 percent larger than the 10-year average for that date. However due to the smaller hatch this year combined stocks of fowl and all classes of chickens may be somewhat smaller on January 1, 1941 than on January 1, 1940.

Poultry: Storage stocks in the United States, and storage movement at twenty-six markets

Year	United States stocks: Sept. 1	United States stocks: Oct. 1	Into-storage movement, week ending as of 1940: Sept. 28	Oct. 5	Oct. 12	Oct. 19	Oct. 26	Nov. 2
	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds
Average 1929-38	47,788	55,073	1,926	2,204	2,330	2,704	3,110	3,362
1938	54,941	59,942	2,144	2,483	2,307	3,043	4,117	3,586
1939	62,870	63,164	1,849	441	5,262	2,452	3,038	4,740
1940	82,178	1/90,446	2,254	2,377	2,950			

1/ Preliminary.

Chicken prices

The average price received by farmers for chickens increased about the usual amount from August to September and was above the price of a year earlier for the second month this year. Improved consumer demand and decreasing supplies of chickens and other meats explain the increasing chicken prices during recent months. These favorable influences are expected to dominate the situation during the remainder of this year and the first part of 1941. Prices received by farmers for chickens during this period are expected to be higher than those of a year earlier.

Price per pound received by farmers for chickens

Year	Jan. 15	Feb. 15	Mar. 15	Apr. 15	May 15	June 15	July 15	Aug. 15	Sept. 15	Oct. 15	Nov. 15	Dec. 15
	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents
Average 1929-38	14.8	15.0	15.3	15.9	15.7	15.5	15.1	14.9	15.2	14.6	14.1	13.6
1938	16.7	16.0	15.9	16.2	16.1	15.7	15.0	14.2	14.3	13.6	13.6	13.6
1939	14.0	14.2	14.3	14.4	13.9	13.4	13.7	13.0	13.6	12.7	12.4	11.7
1940	12.0	12.2	12.8	12.9	13.6	13.3	13.6	13.4	13.7			

FALL AND WINTER BROILERS

Hatchery production of baby chicks during recent months has been larger than a year earlier in most broiler producing areas of the country. This probably is partly the result of the continued expansion of the broiler industry but largely the result of the improvement in chicken prices compared to the fall of 1939. Higher prices resulting from smaller supplies of chicken and competing meats, primarily pork and the expected larger consumer incomes in prospect, may tend to cause a larger production of broilers this fall and winter than in the 1939-40 commercial broiler season.

: See September issue of Poultry and Egg :
:Situation for 1940-41 outlook for chickens and eggs:

TURKEYS

Turkey production in 1940 is now indicated to be about 33,138,000 birds which is 1 percent larger than the record large 1939 crop. The larger number of turkeys produced this year is the result of larger home hatching of poults since commercial hatchings were smaller than in 1939. The tendency toward heavier average weight of turkeys marketed apparently has continued this year. Hence, turkey meat production in 1940 may be slightly larger than the record large 1939 production.

Storage stocks of turkeys were reduced by about 50 million pounds between February 1 and October 1 of this year compared with a reduction of about 18 million pounds during the corresponding months of 1939. But stocks on October 1 were still nearly twice those of a year earlier and were the largest on record for that date. However, even the large October 1 stocks were less than 3 percent of the 1939 or 1940 production of turkey meat. Ordinarily, storage stocks of turkeys decline during October. Thus by November 1 the storage stocks of turkeys may constitute only a moderately larger-than-usual proportion of current annual production.

The effects on prices of the slightly larger turkey meat supplies indicated for this year compared with a year earlier are expected to be partly offset by the effects of a higher level of consumer incomes. Thus, turkey prices during the remainder of 1940 when the bulk of this year's production is marketed, may be about the same or somewhat lower than in the corresponding months of 1939. The margin between the 1939 and 1940 farm prices of turkeys narrowed from more than 3-1/2 cents in January and February to about 1 cent in August and September. Some early market prices for turkeys this fall were only slightly below corresponding 1939 prices. Average prices received by farmers for turkeys in early 1941 are expected to be higher than in the first part of 1940.

Chicken prices this fall are higher than a year earlier relative to turkey prices, and supplies of chickens are smaller. These factors will

tend to result in increased consumption of fresh killed turkeys this fall compared to the fall of 1939. The prospective smaller slaughter of hogs in the United States in 1941, compared with 1940, will be an additional supporting influence to poultry meat prices during the coming year. Since poultry meat constitutes a comparatively small proportion of total meat consumed in the United States, as indicated in a following table, it is to be expected that a reduction in the slaughter of meat animals has considerably more effect on poultry meat prices than a reduction of poultry meat supplies has on prices of other meats.

Price per pound received by farmers for live turkeys

Year	Jan. 15	Feb. 15	Mar. 15	Apr. 15	May 15	June 15	July 15	Aug. 15	Sept. 15	Oct. 15	Nov. 15	Dec. 15
	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents
Average 1934-38	15.8	15.7	15.4	15.3	14.6	14.0	13.9	13.8	14.6	15.5	16.9	17.6
1938	17.5	17.7	17.2	17.0	16.4	15.6	15.7	15.0	16.0	16.5	17.1	18.4
1939	18.3	17.5	17.6	16.9	15.6	14.7	14.4	14.3	15.4	15.3	16.0	15.6
1940	14.2	14.0	13.7	13.5	13.2	12.9	12.9	13.4	14.3			

Meat production in the United States, total and per capita consumption of each of six kinds, dressed weight basis, 1939 1/

Meat	Production	Consumption		Percentage of total meat consumed
		Total	Per capita	
	Million pounds	Million pounds	Pounds	Percent
Beef	6,901	7,049	53.7	35.2
Veal	934	934	7.1	4.7
Lamb and mutton	874	871	6.6	4.3
Pork (excluding lard)	8,534	8,347	63.6	41.6
Chickens	2,463	2,462	18.7	12.3
Turkeys	411	382	2.9	1.9
Total	20,117	20,045	152.6	100.0

1/ Data for beef, veal, lamb and mutton, and pork were taken from the Agricultural Marketing Service publication "Livestock, Meats and Wool Market Statistics and Related Data, 1939". Data for chickens and turkeys were compiled by the Bureau of Agricultural Economics from Agricultural Marketing Service data.

Indicated number of turkeys raised in 1940, by regions, compared with numbers in past years

Geographic divisions	Number raised			Number on hand Sept. 1, 1940 in percent of 1939	Indicated number raised in 1940 1/
	Average 1932-36	1938	1939		
	Thousands	Thousands	Thousands	Percent	Thousands
North Atlantic	1,222	1,661	2,072	98	2,041
East North Central	2,005	2,692	3,370	111	3,743
West North Central	6,480	7,829	10,225	104	10,622
South Atlantic	2,090	2,166	2,548	103	2,624
South Central	6,123	5,869	6,670	94	6,299
Western	5,161	6,062	7,847	99	7,809
United States	23,081	26,279	32,732	101.2	33,138

1/ Indicated by change in numbers reported in sample flocks on September 1, 1940.

DOMESTIC DEMAND

Improvement in general business conditions and consumer purchasing power, which has been resulting in an increase in the domestic demand for farm products in recent months, is continuing. The improvement since April in industrial activity is being reflected in increased employment and larger incomes of consumers. Conditions appear favorable to a continued high level of industrial activity, and there may be some further gains by the end of the year. The defense program and the large volume of industrial exports are the principal factors of strength in the situation, furnishing a huge backlog of industrial orders.

Index numbers of nonagricultural income
(1924-29 = 100, adjusted for seasonal variation)
Revisions as of September, 1940

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Average 1929-38	84.9	84.6	84.9	84.5	84.0	85.1	84.3	84.1	83.7	83.7	83.4	83.8
1938	88.0	87.6	87.4	86.5	85.9	85.6	85.7	87.5	88.0	88.5	89.5	90.6
1939	90.6	90.9	91.3	90.0	90.8	92.1	91.8	93.3	93.3	95.0	95.9	97.1
1940	96.9	96.2	95.9	95.3	96.4	97.4	97.8	1/99.0				

1/ Preliminary.

FACTORS AFFECTING THE AVERAGE PRICE RECEIVED BY FARMERS FOR TURKEYS IN THE UNITED STATES

The effects on turkey prices of changes in production of turkeys and changes in consumer demand from 1929-39 are indicated in the chart on the cover page of this report. The average annual price, as used in this analysis, is an average of the mid-month prices October through January weighted as follows: October 2, November 3, December 3, and January 2. These weights roughly approximate the proportion of turkeys sold in each month. Prices for other months of the year were not included since, for most of the years included in the analysis, sales of turkeys from farms in these months were only a very small part of total annual sales.

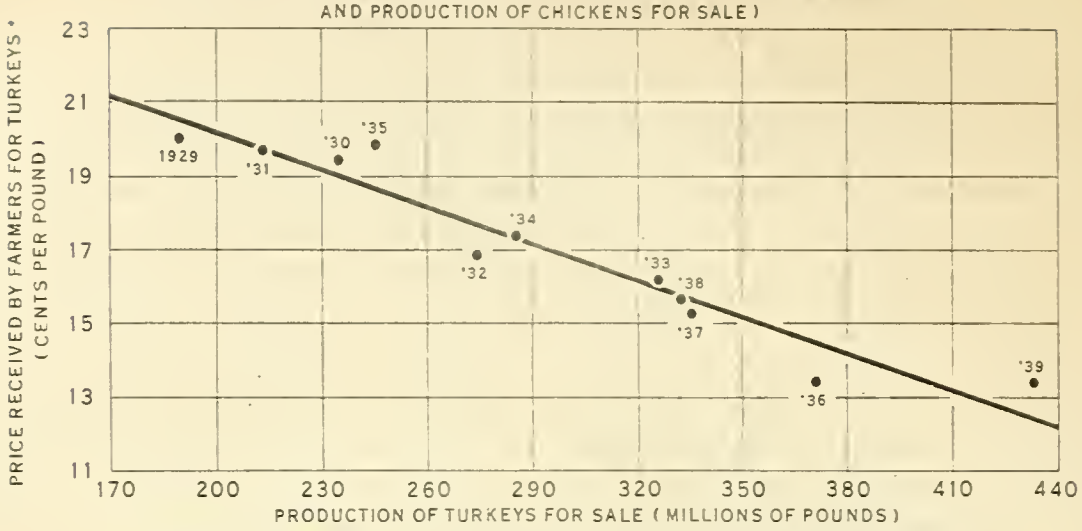
Production of turkeys as used in this study, consists of the production of turkey meat for sale and is the product of the number of birds sold in each geographic division multiplied by the annual average weight per bird sold in each division. Changes in consumer demand in this analysis are measured by the simple average of the seasonally adjusted index numbers of nonagricultural income payments for the months August through January. The production of chicken meat for sale also was included in this analysis as an additional factor affecting turkey prices. The method used to determine the pounds of chicken meat produced for sale was the same as that used to obtain the comparable figure for turkeys. Figure 2 shows graphically the relation of turkey prices to each of the other factors after adjusting the price and the variable to which price is being related for the respective influence of the two remaining variables. In other words, these charts show the effect that each price-determining factor has on turkey prices when each of the two remaining price-determining factors are held constant, statistically, at their 1929-39 average levels. This analysis indicates that, for these years, changes in nonagricultural income were more important in causing year-to-year changes in turkey prices than changes in supplies of turkeys and chickens.

Each change of a million pounds in the volume of turkey produced for sale, on the average, resulted in a change in the opposite direction of about .03 cent. per pound in the price received by farmers for turkeys when each of the factors (price and production of turkeys) had been adjusted for the estimated effects of nonagricultural income and production of chickens. On this basis, an increase of 50 million pounds in the production of turkeys would cause on the average, a decrease in the price of turkeys of 1.6 cents. Each change of one point in the index numbers of nonagricultural income payments, on the average, resulted in a change in the same direction of 1/4 of a cent in the average price received by farmers for turkeys when each of the factors (turkey prices and nonagricultural income) had been adjusted for the estimated effects of production of turkeys and of chickens. Similarily, each change of a million pounds in the volume of chickens produced for sale, on the average, resulted in a change in the opposite direction of about .01 cents in the average price received by farmers for turkeys when each of the factors (price of turkeys and production of chickens) had been adjusted for the estimated effects of nonagricultural income and production of turkeys. Thus, an increase of 50 million pounds in the production of chickens would result, on the average, in a decrease of .6 cents in the price of turkeys.

PRICE OF TURKEYS RELATED TO VARIOUS FACTORS, UNITED STATES, 1929-39

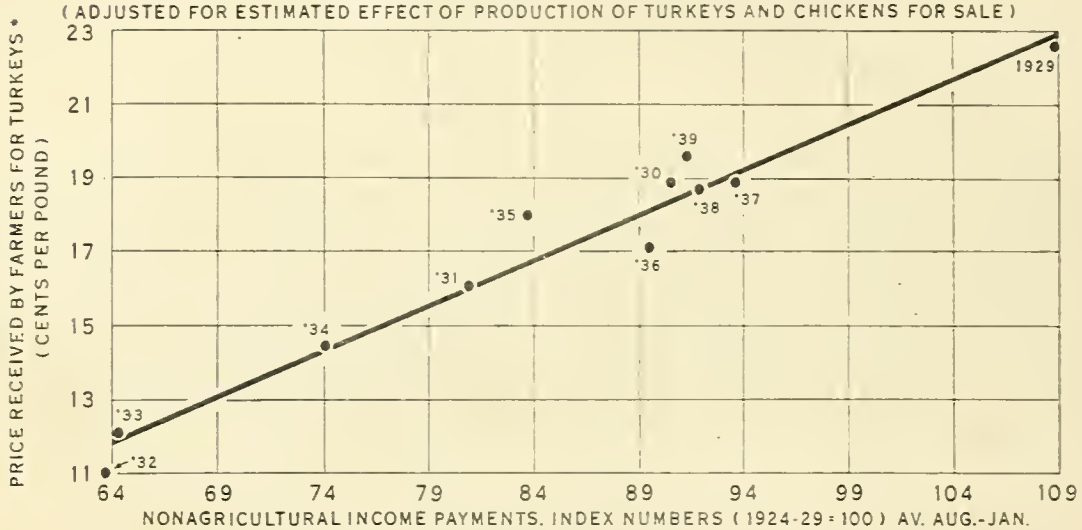
PRICE AND PRODUCTION OF TURKEYS FOR SALE

(ADJUSTED FOR ESTIMATED EFFECT OF NONAGRICULTURAL INCOME PAYMENTS AND PRODUCTION OF CHICKENS FOR SALE)



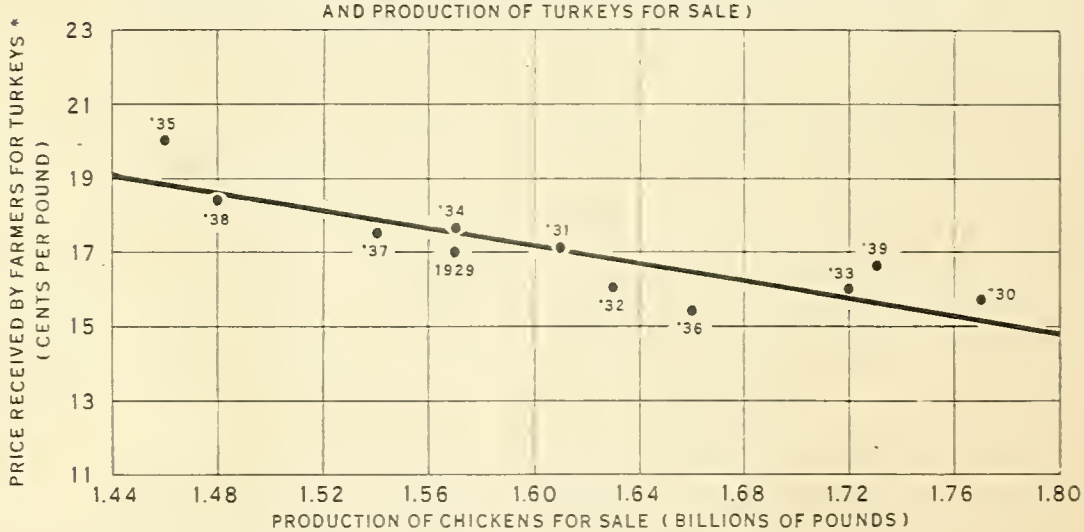
PRICE OF TURKEYS AND NONAGRICULTURAL INCOME PAYMENTS

(ADJUSTED FOR ESTIMATED EFFECT OF PRODUCTION OF TURKEYS AND CHICKENS FOR SALE)



PRICE OF TURKEYS AND PRODUCTION OF CHICKENS FOR SALE

(ADJUSTED FOR ESTIMATED EFFECT OF NONAGRICULTURAL INCOME PAYMENTS AND PRODUCTION OF TURKEYS FOR SALE)



* *WEIGHTED AVERAGE PRICE OF TURKEYS, OCT.- JAN. (WEIGHTS: OCT., 2; NOV., 3; DEC., 3; AND JAN., 2)*

U. S. DEPARTMENT OF AGRICULTURE

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FIGURE 2

On the basis of the prospects for supplies of chickens and turkeys and non-agricultural income, this analysis indicates that the weighted average price received by farmers for turkeys from October to January in 1940-41 will be somewhat higher than in 1939-40. But a consideration of some other factors not included in the analysis indicate that prices in these months of 1940-41 may be about the same or somewhat lower than in the corresponding months of 1939-40.

Other factors affecting turkey prices

Although the three factors considered in the analysis account for most of the variation in the price received by farmers for turkeys in the years 1929-39, other factors also may be expected to have some effect on turkey prices. Some of these other factors, however, do not lend themselves to quantitative measurement and others have not been sufficiently consistent in their effects on turkey prices to give statistically significant relationships. It was found, for example, that changes in the production of chickens influenced turkey prices to a considerable extent but that changes in the production of all other meats have no effect on turkey prices (i.e. the partial correlation for these two factors was zero.) Nevertheless, it is reasonable to expect that changes in supplies of other meats actually do affect turkey prices. Since turkey meat is now available at retail counters the year round it is especially likely that consumers consider the prices of various kinds of meat when deciding which meat to buy. Perhaps the reason that no relationship between turkey prices and production of other meats was indicated is that the slaughter of meat animals generally has been increasing at the same time that turkey production has been increasing. Thus, the effect on turkey prices of a major reduction in supplies of other meats has not been measured for a period when turkey meat output was near the present level. As more data become available, some relationship between turkey prices and production of all meats may become apparent.

Several developments which have accompanied the marked expansion in turkey production are the increase in consumption of turkey meat in the spring and summer (an off-season) and the introduction of new methods for retailing and for serving turkey meat. The first of these can be measured roughly by the net out-of-storage movement of turkey in the period February 1 to October 1 or November 1. This year, for example, there was a net out-of-storage movement of 50 million pounds of turkey from February 1 to October 1 compared with 20 million pounds in 1939 and 8 million pounds in 1929 for the corresponding periods. The use of these data as a measure of turkey meat consumption in the summer time is of doubtful accuracy, however, because summer marketings of live turkeys, old breeder hens, etc. are not included and these marketings vary considerably from year to year. These considerations explain why the effects on turkey prices of off-season consumption of turkey meat cannot be isolated and specifically determined. Nevertheless this off-season consumption is an important demand factor and probably will become increasingly important to the turkey industry.

New methods for retailing and for serving turkey meat, which have been developed recently, obviously cannot be measured quantitatively and therefore no attempt has been made to statistically relate them to turkey prices.

Although such methods are somewhat related to the consumption of turkeys in the off-season, they are of importance in themselves and will become increasingly important if turkey production continues to expand.

With the increase in annual supplies of turkey and the resulting increase in off-season consumption, it naturally has become necessary to store considerable quantities of turkey for use in the spring and summer. The storage margin (the financial outcome from storing the product) varies considerably from year to year for several farm products and the size of the margin frequently affects the demand for storing that product in the following season. If it is necessary in the future to store quantities of turkeys as large as or larger than the quantity stored in the 1939-40 season the storage margin for turkeys may become important in affecting turkey prices in the following turkey-marketing season.

H. C. KRIESEL

INDEX OF SPECIAL SUBJECTS DISCUSSED IN THE POULTRY AND EGG SITUATION

	Pages	Issue
Outlook for 1940 turkey marketings	-	This issue
Factors affecting the average price received by farmers for turkeys in the United States	13-16	"
Poultry and egg outlook for 1941	-	September, 1940
Chick Hatchery Survey, 1937-38	11-13	August 1940
Forecast of number of layers on farms in January 1941	7	July 1, 1940
A comparison of four feed-egg ratios	10-13	May 1, 1940
Changes in method of reporting egg production and number of layers	7	April 2, 1940
Estimated storage margin on shell eggs per dozen, average 1916-35 and 1925-34, annual 1935-39...	11-12	March 2, 1940
1916-37	9	February 1, 1938
Change in official index of seasonal variation of farm egg prices	9	February 2, 1940
Feed-egg ratio defined	10-11	December 4, 1939
Effects of the World War and possible effects of the present war	4-7	November 10, 1939
Long-time factors in the chicken and egg outlook	13-14	November 10, 1939
Long-time factors in the turkey outlook	20-22	November 10, 1939
Production of poultry feed grains and November feed-egg ratio	4-5	September 1, 1939